

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
31 December 2003 (31.12.2003)

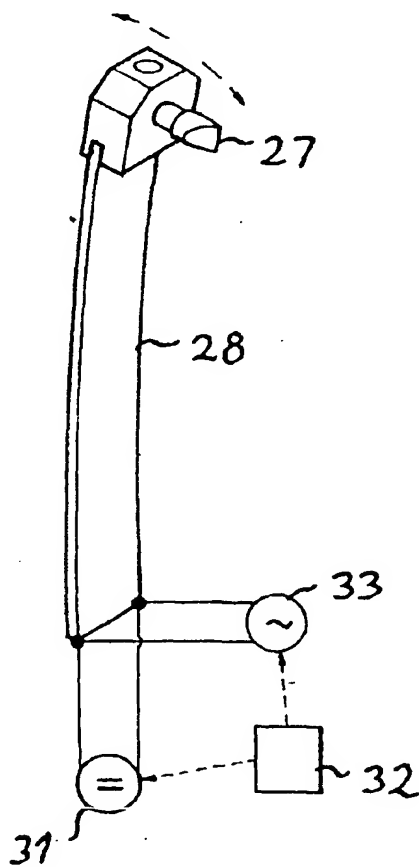
PCT

(10) International Publication Number
WO 2004/001466 A1

- (51) International Patent Classification⁷: **G02B 6/25**
- (21) International Application Number: **PCT/SE2003/000949**
- (22) International Filing Date: **10 June 2003 (10.06.2003)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
0201945-3 **25 June 2002 (25.06.2002)** **SE**
- (71) Applicant (for all designated States except US): **NYFORS TEKNOLOGI AB [SE/SE]; Solkraftsvägen 12, S-135 70 Stockholm (SE).**
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **BÖTTCHER, Uwe [SE/SE]; Heleneborgsgatan 10 A, S-117 32 Stockholm (SE).**
- (74) Agents: **OLSSON, Jan et al.; Bjerkéns Patentbyrå KB, Box 1274, S-801 37 Gävle (SE).**
- (81) Designated States (national): **AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.**
- (84) Designated States (regional): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,**

[Continued on next page]

(54) Title: **AN APPARATUS AND A METHOD FOR CLEAVING THIN RODS**



(57) Abstract: An apparatus for cleaving thin rods of glass or quartz comprises a rod cleaving blade (27) and a body (28) carrying the blade. The body is of a material varying its length through application of electric and/or magnetic fields therein. Driving means (31, 33) are adapted to achieve a relatively steady movement of the blade towards a desired cleaving point and a relatively small-amplitude vibratory component of movement towards and away from the cleaving point superimposed to the relatively steady movement by influencing said body electrically and/or magnetically. A driving means is adapted to make the blade vibrate with a frequency below 1 kHz during the cleaving operation.

WO 2004/001466 A1



SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— with international search report